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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/759,171	01/16/2001	Lothar Zimmermann	P20465	9812

7055 7590 08/15/2003  
GREENBLUM & BERNSTEIN, P.L.C.  
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RESTON, VA 20191

EXAMINER

JIMENEZ, MARC QUEMUEL

ART UNIT	PAPER NUMBER
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3726

DATE MAILED: 08/15/2003

18

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/759,171

Applicant(s)

ZIMMERMANN, LOTHAR

Examiner

Marc Jimenez

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-22 and 24-51 is/are pending in the application.
- 4a) Of the above claim(s) 24-46 and 48-51 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 and 47 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 January 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Non-Final Rejection*

1. A personal interview with Mr. Hong Xu was conducted on June 3, 2003. During the interview, Mr. Xu was informed that it appeared that the solid smooth roller of applicant's invention overcomes the Holroyd et al. reference which shows a pervious surface. However, after reconsidering the Holroyd et al. reference, it has been determined that Holroyd et al. actually teaches a solid smooth roller. In col. 2, lines 16-18, Holroyd et al. expressly teaches "a woven asbestos fabric cover for ironer rolls which is impregnated with a substantial amount of thermosetting resin to impart to the fabric the desired **smoothness** of surface,...". Furthermore, in col. 1, lines 20-22, Holroyd et al. teach "... finishing treatment for the fabric should both contribute to the **smoothness** of the outer surface of the ironer roll."

Applicant's argument that the roll disclosed in Holroyd et al. is designed to be porous and is pervious to steam or moisture is duly noted. Applicant argues that the roll of Holroyd et al. is not a "solid cylindrical mass" because the covering layer of Holroyd et al. is disclosed as being porous and/or pervious to moisture. However, it is noted that a porous surface can still be solid at the same time as demonstrated by Schonberger et al. (6,308,623) (newly cited reference listed on the attached PTO-892). Schonberger et al. teach in col. 6, line 19: "... a jacket member **22** made of **solid** and **porous** material,..." Therefore, Holroyd et al. clearly teach the claim limitations: "covering layer is a solid cylindrical mass having a smooth outer surface".

It is noted that applicant's disclosure does not provide an explanation or definition of a solid cylindrical mass. However applicant states that Fig. 1 and 2 of applicant's drawings clearly

provides such explanation because one having ordinary skill in the art would clearly understand that the covering layer 3 is a solid cylindrical mass and applicant is entitled to rely on the ordinary meaning of these terms and phrases when the ordinary meaning is fully supported by applicant's figures. Applicant further states that applicant is entitled to rely on knowledge that is generally known in the art, ie., in general that roll covers having the form of a solid cylindrical mass are conventional (see page 25, lines 13-18 to page 26, lines 1-5 of applicant's response filed 6/26/03). It is noted that the examiner is also relying on the generally known teaching in the art that a solid cylindrical mass can be porous as demonstrated by Schonberger et al. Therefore, Holroyd et al. clearly teach the claimed solid cylindrical mass having a smooth outer surface.

Although, the same grounds of rejection in the last office action is maintained herein, this office action has been made non-final in order to give applicant a chance to respond to the office position.

#### ***Election/Restrictions***

2. The withdrawn process claims which now depend from the product claims will not be rejoined at this time because the product claims have not been found allowable. Therefore, claims 24-46 and 48-51 remain withdrawn from further consideration.

#### ***Specification***

3. The title and abstract of the invention is not descriptive. A new title and abstract are required that is clearly indicative of the invention to which the claims are directed (elected product claims).

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. **Claims 1-8, 12, 13, 16-18, 20, 21, and 47** are rejected under 35 U.S.C. 102(b) as being anticipated by Holroyd et al. (2,534,818).

Holroyd et al. teach a roll for smoothing a web comprising: a hard metal (col. 3, line 37) roll core **10** having an outer surface, a covering layer **12** disposed on the outer surface of the roll core **10**, the covering layer **12** having an inner surface and an outer surface, the covering layer **12** comprising at least one thermosetting plastic (col. 2, line 17 and col. 4, lines 64-68) and at least one thermoplastic (col. 2, line 20 and col. 4, lines 68-70), wherein the at least one thermoplastic has a melting temperature which is below a glass transition temperature of the at least one thermosetting plastic (col. 4, lines 64-71), and wherein the covering layer **12** is a solid cylindrical mass having a smooth outer surface (col. 1, lines 21-22 “smoothness of the outer surface of the ironer roll” and col. 2, lines 15-18, “...cover for ironer rolls which is impregnated with a substantial amount of thermosetting resin to impart to the fabric the desired smoothness of surface,...”). In col. 4, lines 64-71, Holroyd et al. gives examples of thermoplastics that could be used, namely: acrylic resin such as polymethyl methacrylate, or Kandar, polystyrene or polyvinyl

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butyral. Holyroyd et al. also give examples of thermosetting resins that could be used, namely: melamine-formaldehyde, urea-formaldehyde, a polyester resin, an alkyd resin, or styrene-maleic anhydride copolymer resin. It is noted that if the thermoplastic that was used was "acrylic resin" (which has a melting temperature of 130degrees C, see physical properties of acrylic resin attached to this office action) and the thermosetting resin that was used was "styrene-maleic anhydride copolymer resin" (which has a glass transition temperature of 155 degrees C, see physical properties of styrene-maleic anhydride copolymer resin attached to this office action), the thermoplastic has a melting temperature (130degrees C) which is below a glass transition temperature of the thermosetting plastic (155 degrees C). Furthermore, applicant has submitted a "Plastics Chooser Chart" to show that one of ordinary skill in the art is well aware of both thermoplastics and thermosetting plastics and such a skilled person also knows the particular properties of such plastic types, wherein polyester resin, a thermosetting, is listed along with acrylic, which is a thermoplastic. Applicant also states that each of the commonly known materials would suffice to practice the instant invention (see page 10 of applicant's response filed 8/30/02, paper #9). Therefore, since Holyroyd et al. teach using a polyester resin (col. 4, line 66) and an acrylic (col. 4, line 69), Holyroyd et al. inherently teaches that the thermoplastic has a melting temperature which is below a glass transition temperature of the thermosetting plastic.

Note that the covering layer 12 comprises a matrix material and wherein one of fillers and fibers (col. 3 lines 67-75 to col. 4, lines 1-5) are embedded in the matrix material. The amount of thermosetting plastic is greater than the amount of thermoplastic (col. 3, lines 14-18). The claimed proportions of thermosetting plastic to thermoplastic is shown at col. 3, lines 14-18.

The web being a paper web does not further limit the structure of the roll and has not

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been given patentable weight.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. **Claims 9-11, 14, 15, 19, and 22** are rejected under 35 U.S.C. 103(a) as being

unpatentable over Holroyd et al.

With respect to Claims 9-11, Holroyd et al. teach the invention cited above with the exception of using at least two different thermoplastics and at least two different thermosetting plastics.

At the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to use at least two different thermoplastics and at least two different thermosetting plastics because applicant has not disclosed that using at least two different thermoplastics and at least two different thermosetting plastics provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected applicant's invention to perform equally well with either one thermoplastic and one thermosetting plastic as taught by Holroyd et al. or the claimed at least two different thermoplastics and at least two different thermosetting plastics because both

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combinations perform the same function of providing a layer that work equally as well considering the desired heat resistance on the surface of the roll.

With respect to Claims 14 and 15, Holroyd et al. teach the invention cited above with the exception of the mixture ratio varying over a radial thickness of the covering layer.

At the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to have provided a mixture ratio that varies over a radial thickness of the covering layer because applicant has not disclosed that a mixture ratio that varies over a radial thickness of the covering layer provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected applicant's invention to perform equally well with either mixture ratio as taught by Holroyd et al. or the claimed mixture ratio that varies over a radial thickness of the covering layer because both mixture ratios perform the same function of providing a layer that work equally as well considering the desired heat resistance on the surface of the roll.

With respect to Claims 19 official notice is taken that it is well known in the art to use the claimed reinforcing fibers.

With respect to Claim 22, Holroyd et al. teach the invention cited above with the exception of using powdered fillers.

At the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to have used powdered fillers because applicant has not disclosed powdered fillers provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected applicant's invention to perform equally well with either the fibers taught by Holroyd et al. or the claimed



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powdered fillers because both fillers perform the same function of providing a reinforcement equally as well considering the desired reinforcement of the surface layer.

***Response to Arguments***

8. Applicant's arguments filed 6/26/03 have been fully considered but they are not persuasive.

9. In response to applicant's argument that Holroyd et al. do not teach a solid cylindrical mass having a smooth outer surface, see the paragraph 1 above under the heading "***Non-Final Rejection***".

10. In response to applicant's argument that Holroyd et al. is not a roll for smoothing a web, it is noted that Holroyd et al. is used for smoothing a web of fabric. Furthermore, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

11. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., diameters of up to five feet and lengths of up to about 40 feet) are not recited in the rejected claim(s).

Although the claims are interpreted in light of the specification, limitations from the specification

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are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

12. In response to applicant's argument that the rolls of Holroyd are manufactures in an entirely different way than the rolls described in the instant specification, it is noted that the elected invention is directed to the product claims (ie. the roll) not the method of production.

13. It is noted that applicant's disclosure does not provide an explanation or definition of a solid cylindrical mass. However applicant states that Fig. 1 and 2 of applicant's drawings clearly provides such explanation because one having ordinary skill in the art would clearly understand that the covering layer 3 is a solid cylindrical mass and applicant is entitled to rely on the ordinary meaning of these terms and phrases when the ordinary meaning is fully supported by applicant's figures. Applicant further states that applicant is entitled to rely on knowledge that is generally known in the art, ie., in general that roll covers having the form of a solid cylindrical mass are conventional. It is noted that the examiner is also relying on the generally known teaching in the art that a solid cylindrical mass can be porous as demonstrated by Schonberger et al. and as discussed above in paragraph 1 under the heading "***Non-Final Rejection***". Therefore, Holroyd et al. clearly teaches the claimed solid cylindrical mass having a smooth outer surface.

14. The design choice rejections are herein maintained for the reason's above under the heading "***Claim Rejections - 35 USC § 103***".

#### ***Contact Information***

15. Telephone inquiries regarding the status of applications or other general questions, by persons entitled to the information, should be directed to the group clerical personnel. In as much

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as the official records and applications are located in the clerical section of the examining groups, the clerical personnel can readily provide status information. M.P.E.P. 203.08. The Group clerical receptionist number is (703) 308-1148.

If in receiving this Office Action it is apparent to applicant that certain documents are missing, e.g., copies of references cited, form PTO-1449, form PTO-892, etc., requests for copies of such papers or other general questions should be directed to Tech Center 3700 Customer Service at (703) 306-5648, or fax (703) 872-9301 or by email to [CustomerService3700@uspto.gov](mailto:CustomerService3700@uspto.gov).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc Jimenez whose telephone number is **703-306-5965**. The examiner can normally be reached on **Monday-Friday, between 5:30 am- 2:00 pm**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Greg Vidovich can be reached on 703-308-1513. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9302 for regular communications and 703-872-9303 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1148.

Other helpful telephone numbers are listed for applicant's benefit.

Allowed Files & Publication	(703) 308-6789 or (888) 786-0101
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A handwritten signature in black ink, reading "Marc Jimenez". The signature is written in a cursive, flowing style with a large, stylized "M" and "J".

Marc Jimenez  
Patent Examiner  
AU 3726

**MJ**  
August 11, 2003